PROCEEDINGS

OF

THE ROYAL SOCIETY.

1841. No. 47.

March 4, 1841.

MAJOR SABINE, R.A., V.P., in the Chair.

Robert William Sievier, Esq., was balloted for, and duly elected into the Society.

A paper was read, entitled, "Miscellaneous Observations on the Torpedo." By John Davy, M.D., F.R.S.

The experiments described in this paper were made on a single fish, of middle size, recently taken out of the water. Portions of the electrical organs, cut transversely in thin slices, exhibited under the microscope many elliptical particles, apparently blood-corpuscles, the long diameter of which was about 1-800th, and the short about 1-1000th of an inch, and a few filaments, apparently nervous, irregularly scattered; some of them tortuous, and all about the 2000th of an inch in diameter. The latter bore no resemblance to muscular fibres. The blood contained some globular particles, having a diameter of the 4000th of an inch, mixed with the elliptical. The mucus for lubricating the surface was found to contain globules apparently homogeneous in substance, but of irregular outline, and in size varying from the 2000th to the 270th of an inch.

A paper was also read, entitled, "On a remarkable property of the Diamond." By Sir David Brewster, K.H., D.C.L., F.R.S.L., V.P.R.S. Ed.

On re-examining the phenomena of parallel bands of light and shade exhibited by reflexion at the plane surface of a diamond, which the author had noticed some years ago, he concludes that they result from the reflexions of the edges of veins or laminæ, of which the visible terminations are inclined at different angles, not exceeding two or three seconds, to the general surface. He gives an account of several analogous facts observable in other crystals, more especially those of carbonate of lime, artificially polished in surfaces inclined to the natural planes of cleavage.